

Diphtheria toxoid IgG

VaccZyme™ EIA kit for the measurement of specific Diphtheria toxoid IgG

IgG antibodies to Diphtheria toxoid are produced by the immune system following infection with *Corynebacterium diphtheriae* (in response to the presence of the Diphtheria toxin) or in response to immunisation with Diphtheria vaccine. The measurement of specific antibodies to Diphtheria toxoid is important in the assessment of an individual's immune status.

HIGH PERFORMANCE

Excellent correlation with the Vero Cell Assay (VCA)
Assay sensitivity to 0.012 IU/mL
Accurate results within 2 hours

EASY TO USE

Standard EIA methodology
Ready to use reagents supplied in kit format
Simple protocol for easy automation

ACCURATE & RELIABLE RESULTS

Calibrated against international reference material WHO 00/496
Excellent intra- and inter-batch precision
Controls provided in the kit

The Binding Site VaccZyme™ assay is specific, precise and optimised to give excellent correlation with the gold standard Vero Cell Assay



Diphtheria toxoid IgG EIA Kit

IMMUNE STATUS

Immunity to Diphtheria is acquired by infection with the toxin-producing bacterium *Corynebacterium diphtheriae* or by vaccination. In the case of natural infection, immunity tends to be lifelong, however the duration of vaccine-induced immunity is variable (in the region of 5 years)¹. The minimum level of protective antibodies is considered to be 0.01 IU/mL for epidemiological purposes, however a higher level of 0.1 IU/mL is desirable for individual protection^{2,3}. In order to determine accurately the immune status of an individual, the sensitivity of the assay should ideally be equivalent to the minimum level of protection (0.01 IU/mL).

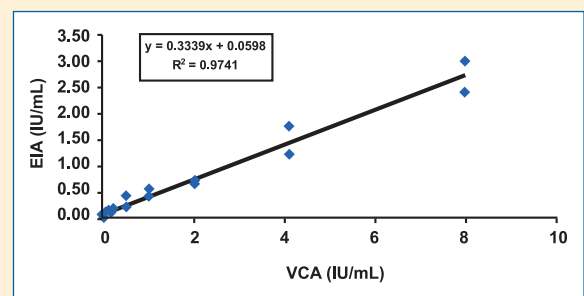
PRODUCT SPECIFICATIONS

Measuring range	0.012 - 3 IU/mL
Sample dilution	1:100
Calibration	WHO 00/496
Tests per kit	1 x 96 well plate (12 x 8 microwell strips)
Assay time	< 2 hours
Sample incubation	30 minutes
Conjugate incubation	30 minutes
Substrate incubation	30 minutes



CORRELATION TO THE VERO CELL ASSAY (VCA)

The VCA is a toxin neutralisation assay widely considered to be the gold standard assay for Diphtheria serology. Maple *et al*⁴ stated that antitoxin levels obtained by EIA methods tend to be artificially elevated due to the binding of non-neutralising antibodies and this may lead to the failure to boost immunity in individuals who require it. The World Health Organisation Immunization Policy¹ indicates that neutralisation tests may not correlate well with other assays.



34 routine samples assayed on The Binding Site VaccZyme™ Diphtheria toxoid IgG EIA and the VCA⁵.

The Binding Site VaccZyme™ Diphtheria toxoid IgG EIA has been developed to correlate with the VCA in order to offer an easily automated, simple to interpret assay providing a quantitative result within 2 hours^{5,6}.

REFERENCES

1. World Health Organization Immunization policy WHOGPV/GEN/95.03 Rev.1
2. Mary E B Ramsay *et al*. Persistence of antibody after accelerated immunisation with diphtheria/tetanus/pertussis vaccine. *BMJ* 1991;**302**:1489-91
3. The Control of Diphtheria in Europe. Report on a WHO meeting. Copenhagen 1990
4. Maple *et al*. Diphtheria immunity in adults. Letter to the Editor *The Lancet* Vol 348, October 5, 1996
5. R. Budd *et al*. 14th ECCMID, Prague, 2004
6. R. Budd *et al*. Accepted for 16th ECCMID, Nice 2006

DESCRIPTION	PACK	CODE
VaccZyme™ Diphtheria toxoid IgG EIA kit	96 tests	MK114

Please contact us for information regarding FDA clearance of these kits in the USA.

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